

CLAIMS:

1. A method for the disinfection of air, comprising the distributing or atomizing of an antimicrobial composition, wherein a concentration of the antimicrobial composition of from 0.001 to 1 ml per m³ of air is adjusted by said distributing or atomizing of said antimicrobial composition, and/or exchanging air systems are adjusted to achieve a dosage of from 0.001 to 1 ml per m³ of air per hour, and/or a permanent concentration of from 5 to 10 ppb of the antimicrobial composition is achieved, wherein said antimicrobial composition is free from ethanol and isopropanol and contains
 - (a) one or more GRAS (generally recognized as safe) flavor alcohols or their derivatives; and
 - (b) one or more flavoring agents selected from
 - (b1) polyphenol compounds; and
 - (b2) GRAS flavor acids or their derivatives.
2. The method according to claim 1, wherein said antimicrobial composition contains
 - from 0.1 to 99.9% by weight, preferably from 0.5 to 99% by weight, of component (a); and
 - from 0.01 to 25% by weight, preferably from 0.01 to 10% by weight, of component (b1); and/or
 - from 0.01 to 70% by weight, preferably from 0.01 to 30% by weight, of component (b2).
3. The method according to claim 1 or 2, wherein said GRAS flavor alcohol (a) is selected from:
benzyl alcohol, acetoin, propyl alcohol, propylene glycol, glycerol, n-butyl alcohol, iso-butyl alcohol, hexyl alcohol, L-menthol, octyl alcohol, cinnamyl alcohol, α -methylbenzyl alcohol, heptyl alcohol, n-amyl alcohol, iso-amyl alcohol, anisalcohol, citronellol, n-decyl alcohol, geraniol, β - γ -hexenol, lauryl alcohol, linalool, nerolidol, nonadienol, nonyl alcohol, rhodinol,

terpineol, borneol, cineol, anisole, cuminyl alcohol, 10-undecene-1-ol, 1-hexadecanol, or their derivatives;

said polyphenol compound (b1) is selected from:

catechol, resorcinol, hydroquinone, phloroglucinol, pyrogallol, cyclohexane, usnic acid, acylpolyphenols, lignins, anthocyanins, flavones, catechols, gallic acid derivatives, caffeic acid, flavonoids, derivatives of the mentioned polyphenols, and extracts from Camellia, Primula; and

said GRAS acid (b2) is selected from:

acetic acid, aconitic acid, adipic acid, formic acid, malic acid, capronic acid, hydrocinnamic acid, pelargonic acid, lactic acid, phenoxyacetic acid, phenylacetic acid, valeric acid, iso-valeric acid, cinnamic acid, citric acid, mandelic acid, tartaric acid, fumaric acid, tannic acid, and their derivatives.

4. The method according to one or more of claims 1 to 3, wherein said antimicrobial composition contains
 - (a1) at least one aromatic GRAS flavor alcohol as a necessary component; and optionally
 - (a2) one or more further GRAS flavor alcohols or their derivatives.
5. The method according to claim 4, wherein said aromatic GRAS flavor alcohol is selected from benzyl alcohol, 2-phenylethanol, 1-phenylethanol, cinnamic alcohol, hydrocinnamic alcohol, and 1-phenyl-1-propanol, preferably benzyl alcohol.
6. The method according to claim 4 or 5, wherein said further GRAS flavor alcohol (a2) is a hydrophilic GRAS flavor alcohol, and/or said GRAS acid (b2) is a hydrophilic GRAS acid.
7. The method according to claim 6, wherein said hydrophilic GRAS flavor alcohol is a monohydric or polyhydric alcohol containing from 2 to 7 carbon

atoms, especially selected from 1-propanol, glycerol, propylene glycol and acetoin, preferably propylene glycol; and

said hydrophilic GRAS acid is an organic acid containing from 2 to 10 carbon atoms, especially selected from acetic acid, aconitic acid, formic acid, malic acid, lactic acid, phenylacetic acid, citric acid, mandelic acid, tartaric acid, fumaric acid, tannic acid, hydrocinnamic acid and their physiologically acceptable salts.

8. The method according to one or more of claims 4 to 7, wherein said antimicrobial composition contains
from 0.1 to 99% by weight, preferably from 0.1 to 75% by weight, of component (a1);
from 0 to 99.8% by weight, preferably from 0.01 to 99% by weight, of component (a2); and
from 0.01 to 25% by weight, preferably from 0.01 to 10% by weight, of component (b1); and/or
from 0.01 to 70% by weight, preferably from 0.01 to 30% by weight, of component (b2).
9. The method according to claim 8, wherein said antimicrobial composition contains from 0.1 to 10% by weight of component (a1), preferably benzyl alcohol, and at least 75% by weight, especially from 90 to 99% by weight of hydrophilic GRAS flavor alcohol, especially propylene glycol.
10. The method according to one or more of claims 1 to 9, wherein said antimicrobial composition contains additional GRAS flavoring agents selected from (c) phenols, (d) esters, (e) terpenes, (f) acetals, (g) aldehydes, and (h) essential oils.
11. The method according to claim 10, wherein said antimicrobial composition contains from 0.001 to 25% by weight, preferably from 0.01 to 9% by weight, of said additional GRAS flavoring agents (c) to (h).

12. The method according to claim 10 or 11, wherein said additional GRAS flavoring agents are phenols (c) and/or essential oils (h).
13. The method according to one or more of claims 1 to 12, wherein said antimicrobial composition does not contain any derivatives of said GRAS flavoring agents.
14. The method according to one or more of claims 4 to 12, wherein said antimicrobial composition contains one or two GRAS flavor alcohols (a2) and at least one polyphenol compound (b1), especially tannin.
15. The method according to claim 14, wherein said antimicrobial composition contains from 0.1 to 20% by weight of benzyl alcohol and from 0.01 to 10% by weight of tannin.
16. The method according to one or more of claims 1 to 15, especially according to claim 9, wherein the water content of said antimicrobial composition is less than 35% by weight, preferably from 5 to 25% by weight.
17. The method according to one or more of claims 1 to 15, wherein said composition
 - (i) further contains monohydric or polyhydric alcohols having from 2 to 10 carbon atoms, emulsifiers, stabilizers, antioxidants, preservatives, solvents, and/or carrier materials; or
 - (ii) exclusively consists of GRAS flavoring agents.
18. The method according to one or more of claims 1 to 17, wherein said atomizing of said antimicrobial composition is effected by a two-fluid nozzle system, evaporation system or a bubbler installation for the air, or in a special design for packaging.
19. The method according to claim 1, wherein a concentration of said antimicrobial composition of from 0.01 to 0.1 ml per m³ of air is adjusted by said dis-

tributing or atomizing of said antimicrobial composition, and/or exchanging air systems are adjusted to achieve a dosage of from 0.01 to 0.1 ml per m³ of air per hour.

20. An antimicrobial composition for the disinfection of air as defined in claims 1 to 17.
21. Use of an antimicrobial composition as defined in claims 1 to 17 for the disinfection of air including the air in all kinds of packages.